



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,264	01/05/2001	Tetsuo Usami	OKI.202	3022

7590 04/07/2003
JONES VOLENTINE, L.L.P.
Suite 150
12200 Sunrise Vally Drive
Reston, VA 20191

EXAMINER

RAO, SHRINIVAS H

ART UNIT PAPER NUMBER

2814

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,264

Applicant(s)

USAMI ET AL.

Examiner

Steven H. Rao

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of paper submitted under 37 CFR 114 claiming priority from U.S. Serial No. 09/754,364 35 filed on January 05, 2001 which itself claims priority under U.S.C. 119(a)-(d), from Japanese Patent Application No. 117990/2000 filed on April 19, 2000 which papers have been placed of record in the file.

Continued Prosecution Application

The request filed on 01/23/2003 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/754,264 is acceptable and a RCE has been established. An action on the RCE follows.

Drawings

The drawings filed on 01/05/01 have been accepted by the draftsman.

Preliminary Amendment Status

Acknowledgment is made of entry of preliminary amendment filed 01 /23 /2003 which has been entered on January 29, 2003.

Therefore claims 10 –13 as recited in the preliminary amendment .

Claims 1 through 9 have been cancelled by the preliminary amendment.

Claim Rejections - 35 USC § 112

I. The following is a quotation of the second paragraph of 35

U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

II. Claim X is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim X the phrase "predetermined ZZZZZ" renders the claim indefinite because the term "predetermined" is characterized according to applicant's own definition merely means determined beforhands; if applicant desires to patent detailed controls over the process they should be affirmatively recited in the claim; if all that asserted as invention is used of control as such, the use of controls is an old and obvious expedient. It is suggested that predetermined be deleted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2814

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 –13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent No. 5,604,155 herein after Wang) previously applied in view of Fukui Soichi (Japanese Patent Publication No. 9-249966, herein after Soichi) newly applied .

With respect to claim 10, Wang describes a method of depositing a wiring film over a semiconductor substrate , the method comprising :

Wang does not specifically describe a Al_3Ti target

However Soichi in its table 2 , no. 2 describes using Al_3Ti target to improve the reliability of the membrane(thin film) formed that can be used in optical media devices.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Soichi's Al_3Ti target in Wang's method to improve the reliability of the membrane(thin film) formed that can be used in optical media devices. (Soichi Effect of the invention section and table 3).

The other limitations of claim 10 are :

providing a substrate (Wang col. 1 line 29), forming a Ti Layer over the substrate(Wang fig. 2 # 52, col. 4 lines 3-7), sputter depositing an Al_3Ti layer on said Ti layer using said Al_3Ti target (Soichi English –abstract) and annealing said substrate at a temperature of at least 400°C to promote absorption of Si into said Al_3Ti layer. (Wang fig.3 # 108, col. 4 lines 25-26, col. 3 lines 5-6).

With respect to claim 11, wherein an Al layer is deposited on said Al_3Ti layer (Wang fig. 3, col. 4 lines 25-26).

Art Unit: 2814

With respect to claim 12, wherein the step of pattern-etching said Al layer thereby forming a wiring pattern. (Wang col. 2 lines 52-55).

With respect to claim 13, wherein the method further comprises forming an insulating layer between said substrate and said Al₃Ti layer (Wang col. 1 lines 36-38).

Applicant's arguments with respect to claims 10-13 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steven H. Rao whose telephone number is (703) 306-5584. The examiner can normally be reached on Monday- Friday from approximately 7:00 a.m. to 5:30 p.m.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The Group facsimile number is (703) 308-7724.



Steven H. Rao

Patent Examiner

March 31, 2003.



LONG PHAM
PRIMARY EXAMINER